

Yacovone, Krista

From: John M. Hoffman <jmhoffman@ashland.com>
Sent: Monday, October 21, 2013 4:09 PM
To: Gorin, Jonathan
Cc: DiPippo, Gary; Carrie McGowan; MacMillin, Scott
Subject: PRAP comments
Attachments: LCP_Comments on PRAP.pdf

Hi Jon,
Hope things getting back to normal for you.
Attached are IES's comments in the PRAP.

Thanks
John

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October 21, 2013

Mr. Jonathan Gorin
Remedial Project Manager
United States Environmental Protection Agency, Region II
290 Broadway
19th Floor
New York, New York 10007-1866

Subject: LCP Chemicals, Inc. Superfund Site (USEPA ID# NJD079303020)
Comments to the Proposed Plan Presented by the US EPA on August 28, 2013

Dear Mr. Gorin:

The USEPA presented a *Proposed Plan* for the LCP Chemicals Inc. Superfund Site during a public meeting held in Linden, New Jersey on August 28, 2013. The *Proposed Plan* provides a summary of the *Remedial Investigation Report*, (Brown and Caldwell, July 2013) and the *Feasibility Study*, (Cornerstone Environmental Group, July 2013) and identified the preferred remedial alternative to address the site contamination.

Several comments are provided, below, in response to the *Proposed Plan* and several other comments that were made during the public comment period.

1. Mobilization of Mercury from the LCP Site as a Result of Flooding During Hurricane Sandy

It is unlikely that flooding during Hurricane *Sandy* caused remobilization of site contaminants, including mercury, to other off-site, inland locations. The LCP site and other nearby industrial properties have been flooded on multiple occasions by extreme weather events prior to and during the course of the Remedial Investigation (RI), such as, Hurricane *Floyd* (1999). Furthermore, the RI data demonstrate (e.g., off-site ditch sampling) that site contaminants in shallow soils were not distributed any significant distance off site in an inland direction, even after the prior flooding known to have occurred. Conditions during *Sandy* are not likely to have been sufficiently different than prior flooding events with respect to floodwater velocities such that it is unlikely that *Sandy* flooding would have caused additional off-site contaminant transport from the site in an inland direction. As such, IES does not believe that there is a need for off-site sampling associated with the LCP site, as was suggested at the public meeting.

2. Contaminant Sources in the Bedrock Groundwater

There is no mention in the *Proposed Plan* that the RI demonstrated that most groundwater constituents in bedrock are undetectable except in the northwest area of the site, upgradient of the LCP production area, and that these upgradient impacts are associated with the adjacent GAF (LPH) site. Soluble mercury, benzene, and chlorobenzenes are detected within an area in which the GAF groundwater extraction system has been shown to induce bedrock groundwater flow from the neighboring GAF site onto the LCP site. However, bedrock groundwater within this area is subsequently captured and treated

by the adjacent GAF groundwater remediation system. In summary, the soluble mercury and other organic constituents from the adjacent GAF site are the likely source of these constituents in the LCP bedrock wells and this mercury is being captured by the GAF groundwater extraction and treatment system. This is an important distinction relative to the remedy including only groundwater monitoring in the bedrock water bearing zone.

3. Selection of Alternative No. 3, “Full Containment”

While IES understands the preference under SARA for remedies that include treatment, the evaluations performed in the USEPA-approved Feasibility Study support selection of Alternative No. 3, Full Containment, as the preferred remedy. It fully controls the sediment/surface water, groundwater, and direct contact pathways. In the case of the LCP Site, available and practicable treatment technology is limited to chemical conversion of elemental mercury to mercuric sulfide. Yet, this technology is unproven, and more importantly, alters only the form of the mercury; the total mass of mercury remains the same. Therefore, without the benefit of the containment components of the remedy, the Site would still exceed the risk benchmarks (for mercury and other contaminants) for protection of human health and the environment. Therefore, the treatment components of Alternative Nos. 4a and 4b add substantial cost without corresponding, meaningful benefit.

As also indicated in the Feasibility Study, the off-site disposal options, Alternatives No. 5a and 5b, do not provide any more practicable of an alternative. As researched during preparation of the Feasibility Study, and as confirmed by the USEPA during the public meeting on August 28, 2013, a practicable disposal facility for the principal threat waste at the LCP Site has not been identified. And, even if one were, such as the USEcology/Stablex facility in Canada, the ultimate management of the mercury would still be via containment; perhaps outside of the US where less stringent regulations would apply (i.e., the land disposal restrictions do not apply in Canada), and the containment remedy (Alternative No. 3) would still be necessary because of the other contaminants associated with the anthropogenic fill and past site operations.

4. Bedrock Water-Bearing Zone Points of Compliance

The USEPA’s Proposed Plan, dated August 2013, on Page 3 indicates that surface water standards could be applied to the bedrock aquifer (designated Class IIIB) because numerical Class IIIB groundwater quality standards have not been developed by the NJDEP. Surface water standards should not and could not be an ARAR for groundwater. However, as a practical matter, surface water standards can be a reasonable ARAR for groundwater if applied only at the point of discharge of the groundwater to surface water. This would mean comparing groundwater quality to surface water standards only at the down-gradient perimeter of the site adjacent to the surface water body, not at any portions of the aquifer within the interior of the site.

5. Use of Vacuuming and Sulfur Treatment

The USEPA’s “Summary of the Preferred Alternative” on Page 10 of the *Proposed Plan*, states the “Porous material that has visible signs of mercury contamination will be vacuumed and treated with sulfur.” The *Feasibility Study* does not include vacuuming as a component of Alternative No. 4b on an equivalent basis to the addition of sulfur. Rather, the *Feasibility Study*, in Section 6.4 describing the building materials alternatives, includes vacuuming “...or other similar technique” for visible elemental mercury, only to the extent practicable.

The limitations on vacuuming are substantial. The cell buildings, where mercury has been observed, are unsafe to enter and so vacuuming cannot be performed prior to demolition. Following demolition, the resultant porous debris (e.g., masonry units) is likely to be crushed and it would be impracticable to

vacuum. As such, while the Feasibility Study does include vacuuming to the extent practicable, it should only be included as a contingent component. This distinction is important to a practicable implementation approach for the alternative. Conversely, where visible elemental mercury may be present in porous building debris, the intent is to add sulfur and then place the material beneath the cap. The sulfur addition is not a contingent component.

Sincerely,



John Hoffman
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cc: G. Allen, Ashland Inc.
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